

CESSNA 172 SKYHAWK



CESSNA 172 SKYHAWK ON PK B2300

FLOAT SPECIFICATIONS

PKB2300

Displacement	2295 lbs.	Length	218.0"
Max. Design Weight	2550 lbs.	Max Beam	27.5"
Installation Weight	305 lbs.	Max Height	24.8"

AIRCRAFT PERFORMANCE

AIRCRAFT SPECIFICATIONS

	Cont -145	Lyc -150	Lyc - 160	Lyc -180	Frank - 215
Top Speed (kts.)	97	99	101	112	129
Cruise Speed (75% Power)	94	96	98	106	120
Stall Speed	43	45	45	45	47
Rate of Climb	580	600	710	880	1120
Takeoff Time Theoretical	30	40	32	18	14
Gross Weight	2220	2300	2300	2300	2500
Empty Weight	1590	1600	1605	1625	1650
Useful Load	630	700	695	675	850
T.O. Horsepower	145	150	160	180	215
Wing Area (sq. ft.)	174	174	174	174	174
Reserve Buoyancy (%)	106	100	100	100	84



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PK B2300

FLOAT STRUCTURE

The structural configuration is of conventional aluminum sheet metal design, with all exterior skins .032" thick. There are eight full bulkheads stiffened with bulb angles and hat sections. The forebody bottom is further stiffened by longitudinal extruded hydroboosters. These are effective hat sections riveted on the outside of the skin and greatly increase the strength of the float bottom. In addition, there are partial bulkheads and skin stiffeners fastened at strategic points throughout the entire structure. The keel section is a "Y" shaped extrusion, the bottom of which is 1/2" thick by 1/2" wide running the full length of both forebody and afterbody. This keel section, together with associated structure, is strong enough so that more than one half of the aircraft weight can be supported at one point between bulkheads.

CORROSION PROTECTION

Because of the requirement to use different metals in contact with each other, electrolytic corrosion is a prime enemy of any water-based structure, therefore particular attention is given to the protective finishing materials and procedures to prevent corrosion. All aluminum skins, bulkheads and individual detail parts of the floats are chemically treated and epoxy primed. The faying surfaces of all watertight seams are coated with a urethane adhesive sealant. Following this, the exterior of the floats are cleaned and painted with two coats of aluminum pigmented lacquer. All aluminum alloy machined parts and extrusions are etched and epoxy primed prior to painting.

All steel parts are cadmium plated. Because of the low beam loading and the installation of forward shields, spray heights are comparatively low. Airframe corrosion is, therefore, kept at a lower level than competing installations. For the same reason, propeller blade tip erosion is also kept to a minimum.

MAINTENANCE & REPAIR B2300

The basic B2300 design is completely free of any stretched skins or compound curvatures. The float skins and bulkheads can, therefore, be repaired in the field under emergency conditions with ordinary hand tools.

PERFORMANCE

The basic hydrodynamic configuration of the float is conventional. The float is almost completely free of either upper or lower limit porpoising. The high sternpost angle permits short radius turns and sufficient freedom of aircraft rotation at takeoff without dragging the float transoms. The beam (width) of each float is 27.5 inches, which, with the addition of the forward bottom hydroboosters, produces low beam loading. This results in lower spray heights and less drag due to spray impingement on the airframe during takeoff. Rough water operations in are unsurpassed because of the basic deep "V" design of the float. Takeoff from smooth water, under adverse temperature and altitude conditions is superior because the sharp edged hydroboosters effectively reduce the beam, and therefore the drag of the wetted area. The forward end of the hydroboosters also are open, permitting air to enter and flow through their full length where it vents the float step and helps break the suction during takeoff.

FEATURES

STOWAGE COMPARTMENT-An optional hatch cover kit converts the center compartment into a roomy storage area.

BILGE PUMP-A high quality brass bilge pump is supplied with each set of floats.

CLEATS-At the request of users who wanted a clear deck, cleats were moved to the sides. (They can be relocated to the top by the user, if he/she so desires.

REDESIGNED SKEG-New rounded heel permits aircraft to slide backwards into the water from a ramp without digging in.

FLAT DECKS-The distinguishing flat decks are one of PK's most popular and appreciated features.

HYDRODYNAMICS-Deep "V" bottom; sharp and air-vented hydroboosters discussed above under performance, are unique to PK's innovative design.